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present invention, connected to each other with an adjustable coupler.

[0044] **FIG. 12** shows an adjustable coupler to adjustably hold the strut ends of strutted frames in position within a structure constructed according to the present invention.

[0044] **FIG. 13** is an illustration of a map of the earth that was projected onto a sphere, with vertexes and triangles arranged according to the present invention and cut along edges of several triangles to create a flat map.

Please replace paragraphs [0048] and [0049] with the following paragraphs:

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[0048] Also shown in **FIG. 5** is an angle of structure θ, also referred to as an external angle θ and, when referring to this first embodiment, a dome angle θ. For purposes of illustration, the radius **R** of the dome **100** is 5 m, the dome angle θ is 10°, and the number of hub elements **5** and the strut length **SL** are to be calculated.

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[0049] To calculate the number of hub elements **5** needed for a semisphere, the solid angle of 360° is divided by the angular deficit α. Knowing that the dome angle θ is 10°, an internal angle β is then equal to (180° - θ)/2, which is 85°. The angular deficit α is equal to 360° (1 - sin β), which is 1.4°. The number of hub elements **5** required is then 360°/1.4°, that is, 257 hub elements **5**. To calculate the hub length **L**, shown in **FIG. 5**, we first calculate the strut length **SL**, that is, the distance between vertexes **V** of the hub elements **5**. As can be seen in **FIG. 7**, the strut length **SL** is equal to *sin* $\theta \times R_A$, which, in this particular embodiment, is (0.174)(5 m) = 0.87 m. The minimum hub length L_{min} is **SL/2** and the maximum hub length L_{max} is slightly shorter than the strut length **SL**. With hub length L_{min} and hub elements **5** that are arranged so as to just tangentially contact adjacent elements **5**, the geodesic dome **100** comprising the **257** hub elements **5** described above will have a dome angle θ of 10°, a radius **R** of 5 m, an angular deficit α of 1.4°, and strut length **SL** of 0.87 m. Any amount of overlap between adjacent hub elements **5** must be added to the minimum hub length to determine the actual hub length **L**.

Please replace paragraph [[0051] with the following paragraph:

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[0051] In the example described above, the dome angle $\boldsymbol{\theta}$, which corresponds to the external angle $\boldsymbol{\theta}$, was known to be 10°. The external angle $\boldsymbol{\theta}$ is the amount of deflection between one leg of the hub element **5** and an extended line from the other leg of the same hub element **5** at the vertex **V**. As can be seen in **FIG. 6**, (2 x sin $\boldsymbol{\beta}$) + $\boldsymbol{\theta}$ is equal to 180°. If the angular deficit $\boldsymbol{\alpha}$ of the hub element **5** is known, the external angle $\boldsymbol{\theta}$ of the hub element **5** and the angle of structure $\boldsymbol{\theta}$ of the structure can be calculated because, based on simple trigonometric equations, it is known that sin $\boldsymbol{\beta}$ equals (1- $\boldsymbol{\alpha}$/180°). So, for example, if the angular deficit $\boldsymbol{\alpha}$ is approximately 1.4°, the dome angle $\boldsymbol{\theta}$ of the dome **100** is approximately 10°.

Please replace paragraphs [0054] through [0057] with the following paragraphs:

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[0054] **FIGS. 6, 7, 8,** and **9** illustrate other types of hub elements that can be used to construct further embodiments of a geodesic structure according to the present invention. **FIG. 6** shows a tapered cone **11** for constructing a first alternative embodiment, **FIG. 7** a tapered triangle **12** for constructing a second alternative embodiment, and **FIGS. 8** and **9** show strutted frame elements **13** and **14**, respectively, for constructing third and fourth alternative embodiments, respectively, of the geodesic structure according to the present invention. **FIG. 10** shows a partial view of the second alternative embodiment of a dome **200** constructed of the tapered triangular elements **12** and a skin **17**. Each triangular element **12** has a wide end **12A** and a narrow end **12B**. The elements **12** are arranged such that each element **12** is touching adjacent elements **12**, with the narrow end **12B** facing in toward the center of the dome **200** forming the concave inner surface and the wide end **12A** forming the outer convex surface. The first alternative embodiment according to the present invention uses the tapered cones **11**, is constructed similarly to the dome **200**, and is also covered with a skin.

[0055] **FIG. 11** shows a partial surface of the third alternative embodiment according to the present invention of a dome being constructed with the strutted frame elements **13**. The elements **13** are hexagonal in shape and comprise three struts **13A** that are crossed in the center so as to form the hexagonal shape. A tension element

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15 forms the perimeter of the strutted frame element 13 and is fastened with sufficient tension to force the struts 13A into a slightly bowed or convex-concave configuration. In this third alternative embodiment, strut ends 13B protrude beyond the perimeter of the strutted frame element 13. Adaptable couplers 16 are used to couple two strut ends 13B of two adjacent strutted frame elements 13. A plurality of frame elements 13 can be connected to form a sphere having the dome angle θ corresponding to the dome angle α of the strutted frames 13. The dome constructed of such elements is then covered with a skin, similar to the dome 200 described above.

[0056] FIG. 12 illustrates a very simple type of adaptable coupler 16, which is a tube, open at both ends. The strut ends 13B of two different strutted frame elements 13 can be inserted into the coupler 16. The coupler 16 is long enough to slidably hold the strut ends 13B within the coupler 16, yet allow the strut ends 13B to slidably adjust the position of the strutted frame elements 13 in place within the structure under construction. Many types of adaptable couplers 16 are available and suitable for holding the strutted frame elements 13 in a proper relationship to the other strutted frame elements 13 in the structure. Suitable couplers include clamps or tubes with holes or slots through which set screws or locking pins are insertable to hold the strut ends 13 in position.

[0057] FIG. 13 illustrates a fifth embodiment of the invention, a map 500 of the earth. For purposes of illustration only, Oslo, Norway is the major point of interest on the map 500 and is located somewhat near the center of the map 500. The intended application of the map is to illustrate travel routes from Oslo to other points in the world. Initially, orthogonal projections of places of major interest are projected onto a sphere, each place of major interest surrounded by vertexes 18. Attention is given not to place the vertexes 18 on areas of particular interest, but instead, to place them in areas of lesser interest, with respect to the particular focus of the map 500. Connecting lines 19 are drawn on the sphere to connect the adjacent vertexes 18. The resulting pattern made by the connecting lines 19 shows that the map 500 is omni-triangulated and that the triangles vary in size and are in some instances scalene triangles. The map 500

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is then cut along some of the connecting lines **19** to allow the map **500** to lie flat. The map **500** has very little distortion, as the entire map is constructed of cartographic images of limited sections of the earth taken as orthogonal views.

IN THE DRAWINGS:

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Please amend **FIG. 5** in accordance with the attached marked-up drawing. Please also change the reference designation of **FIGS. 7** to **14** to **FIGS. 6** to **13**, respectively, as shown in the attached marked-up drawings. Replacement formal drawings are also attached.